

REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the claims are directed to patentable subject matter as set forth below.

Applicants note the Examiner's acceptance of the proposed corrected drawings of Figures 1 and 4 filed on November 10, 2004. The drawings of Figures 1 and 4 include the legend "PRIOR ART" as required by the Examiner. Applicants are submitting herewith a Replacement Sheet of the accepted corrected drawings for Figures 1 and 4.

The outstanding rejections based on art are as follows:

- (1) Claims 1-6, 10, 11, 16, 17, 21 and 23 under 35 U.S.C. § 102(b) over WO 97/27933 (Becker); and
- (2) Claims 1-25 under 35 U.S.C. § 103(a) over Becker.

Claims 1-25 are directed to an apparatus and method for determining properties of a particle, including response of the particle to exposure to a chemical or physical agent, and for separating particles of more than one type including the step of applying to a suspension of particles in a stationary fluid a first and second signal.

Claims 27-31 are directed to a method for determining properties of a particle and for separating particles of more than one type including the step of applying to a suspension of at least two types of particles a first signal at a first frequency and a second signal at a second frequency wherein the second frequency is selected so that the two types of particles travel in opposite directions.

Becker describes a method whereby a liquid containing suspended particles is caused to flow along a chamber containing a series of electrode elements. The electrodes are energized so as to impose either a stationary or a traveling wave dielectrophoretic force onto the suspended particles. Different particles are forced up to various heights above the electrode plane and into different parts of the velocity profile of the flowing liquid. As a result, different particles travel through the chamber at different velocities, so that they exit the chamber at characteristic positions in the eluted fluid.

The claimed invention is directed to a method for separating particles in a stationary fluid. Thus, the basic physics of operation of Becker teaches nothing about applicants' claimed methodology and apparatus.

Becker does not teach a method for separating

particles in a stationary fluid or that a second frequency is selected so that in the separation of different particles, the two types of particles travel in opposite directions as claimed. In Becker, the method of field flow fractionation cannot work in a stationary fluid and all the particles travel along the chamber in the same direction (albeit at different velocities) determined solely by the direction of fluid flow. Accordingly, it is not possible to achieve applicants' separation method from the method of Becker.

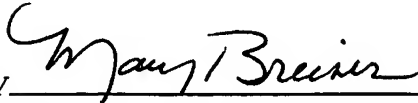
Accordingly, Becker does not teach each and every element as claimed by applicants. Thus, Becker does not anticipate the claimed invention under 35 U.S.C. § 102. Further, Becker provides no suggestion of modifying the teaching of Becker so as to obtain applicants' claimed invention. Therefore, applicants respectfully submit that the claimed invention is not rendered obvious within the meaning of 35 U.S.C. § 103. Withdrawal of the § 102 rejection and the § 103 rejection based on Becker is therefore respectfully requested.

Reconsideration and allowance of the claims are respectfully urged.

5626/USSN 10/031,364  
Group Art Unit 1753

Respectfully submitted,

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Attachments - Replacement Sheets (Corrected Figures 1 and 4)